

SAFETY DATA SHEET

Revision: 31 March 2023

Version number: 1.0

SECTION 1: Identification of the substance/mixture and company/undertaking

1.1 Product identifier	Hardener
1.2 Relevant identified uses of the substance or mixture and uses advised against	Component of two-part adhesive. Uses advised against: not available.
1.3 Details of the supplier of the safety data sheet	Elita Labs Ltd., 11 Nuthatch Lane, Hassock, West Sussex, BN6 9LB, UK Elitalabs@outlook.com; Tel. +44 7751 024685.
1.4 Emergency telephone number	Tel. +44 7751 024685 (UK business hours). UK: 111 (public NHS number for less urgent medical problems). Medical professionals can contact the National Poisons Information Service (NPIS): 0344 892 0111.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to CLP Regulation: UK SI 2019 No. 720 and EU Regulation 1272/2008.

Org Perox C, H242; Skin Sens 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410.

See Section 16 'Other information' for full text of the H-statements.

2.2 Label elements



Signal word	Danger
Hazard statements	Heating may cause a fire. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.
Precautionary statements	
general	Keep out of reach of children.
prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/clothing and eye/face protection.
response	If skin irritation or rash occurs: Get medical attention.
storage	Keep cool.
disposal	Dispose of contents/container in accordance with local/national regulation.
Supplemental information	None.

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2.3 Other hazards Not available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures ^{a,b}

<i>Declarable components</i>	<i>Conc. (wt%)</i>	<i>EC No.</i>	<i>CAS No.</i>	<i>REACH Reg. No.</i>	<i>Classification, supplemental hazards, ATE, M-factor, and SCL</i>
Dibenzoyl peroxide (benzoyl peroxide, BP)	50–75	202-327-6	94-36-0	NA	Org Perox B, H241; Eye Irrit 2, H319; Skin Sens 1, H317; Aquatic Acute 1, H400 (M = 10); Aquatic Chronic 1, H410 (M = 10)
<i>Other components</i>					
Not available					

^a NA: not available.^b See Section 16 'Other information' for full text of the H-statements.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation	If inhalation of product is suspected of causing symptoms, remove exposed person to fresh air and keep at rest in a position comfortable for breathing. For difficulties in breathing, respiratory irritation, or other symptoms, get medical attention.
Skin	For signs of irritation or rash, wash affected area with soap and water. Get medical attention if symptoms persist.
Eye	If in eye, rinse with room-temperature water or eyewash solution for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
Ingestion	If in mouth, rinse out with water. Give water to drink if the product has been swallowed. Get medical attention if exposed person feels unwell. Do not induce vomiting, unless instructed by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed Treat symptoms as they occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable	Water spray, alcohol-resistant foam, carbon dioxide, or dry powder.
Unsuitable	Water jet may spread fire.

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5.2 Special hazards arising from the substance or mixture	<p>Benzoyl peroxide burns violently, with the possible risk of explosion by shock, friction, fire or other sources of ignition.</p> <p>Benzoyl peroxide is an oxidising agent, and contact with combustible material may cause fire.</p> <p>If involved in a fire, product will decompose producing toxic smoke, vapours and gases.</p>
5.3 Advice for firefighters	<p>Remove product from fire or cool containers with water spray. Firefighters should wear self-contained breathing apparatus and full protective clothing.</p> <p>Prevent water from firefighting from entering water-courses or drainage system.</p>

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	<p>Product is supplied in small packages which can be collected if intact.</p> <p>For large spills of product in a professional setting, wear personal protection. Extinguish sources of ignition and use non-sparking tools.</p> <p>Follow prescribed procedures for responding to workplace spills.</p>
6.2 Environmental precautions	<p>Prevent product from entering water courses or drainage system.</p>
6.3 Methods and material for containment and cleaning up	<p>Clean up spill as soon as possible.</p> <p>For small quantities, collect product or wipe off residue with cloth or paper.</p> <p>For larger quantities, absorb onto an inert material (eg sand), and sweep up.</p> <p>Rinse contaminated surfaces with soap and water. Collect waste, washings, and contaminated materials for safe disposal.</p>
6.4 Reference to other sections	<p>For recommended personal protective equipment, see Section 8.</p> <p>For disposal considerations, see Section 13.</p>

SECTION 7: Handling and storage

7.1 Precautions for safe handling	<p>Keep out of reach of children.</p> <p>Avoid skin and eye contact with the product. See measures described in Section 8. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.</p> <p>Keep away from sources of ignition. Protect the containers from any impacts.</p> <p>Limit the quantities of product in the work area to only what is necessary. Open containers with care. There is a risk of overpressurization. Protect product from contamination. Do not return unused product to the product container (risk of decomposition).</p>
7.2 Conditions for safe storage, including any incompatibilities	<p>Keep tightly closed in a dry, cool (5 to 30 °C) and well-ventilated place. Keep away from heat and sources of ignition. Oxidising agent: store separately from combustible materials.</p>
7.3 Specific end use(s)	<p>Component of two-part adhesive.</p>

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

EU limit values	None.
National limit values (UK)	Dibenzoyl peroxide: WEL: 8 h TWA, 5 mg/m ³ .
Monitoring procedure	Not available.
Other: human health (DNELs, DMELs)	Dibenzoyl peroxide: workers, long-term exposure, systemic effects, inhalation, 39 mg/m ³ ; workers, long-term exposure, systemic effects, dermal, 13.3 mg/kg/d; workers, long-term exposure, local effects, dermal, 0.034 mg/cm ² .
Other: environmental (PNEC)	Dibenzoyl peroxide: PNECs: freshwater, 0.00002 mg/L; sewage treatment plant, 0.35 mg/L; freshwater sediment, 0.013 mg/kg dry sediment; soil, 0.003 mg/kg dry soil. Checked 2303

8.2 Exposure controls

Engineering controls	For workplace use, good general ventilation (eg 3 to 5 air exchanges per hour) is recommended.
Personal protective equipment	For handling in the workplace, the need for personal protective equipment should be based on a risk assessment for the particular use. Avoid skin contact by wearing chemical resistant gloves (eg nitrile, 0.2 mm) and safety goggles. If extensive contact may occur, wear protective clothing (eg apron, overalls). Respiratory protective equipment not required for foreseen use. PPE should conform to GB or European (EN) standards. Consult manufacturer concerning breakthrough times.
Environmental exposure controls	Not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Physical state	Viscous liquid
(b) Colour	White
(c) Odour	Characteristic
(d) Melting/freezing point	Not available; BP ca 105 °C
(e) Boiling point or initial boiling point and boiling range	Not available
(f) Flammability	Not available
(g) Lower and upper explosion limit	Not available
(h) Flash point	Not available
(i) Auto-ignition temp.	Not available

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(j) Decomposition temp.	BP: decomposes due to self-accelerating decomposition (not due to an oxidative self-heating). The Self-Accelerating Decomposition Temperature (SADT) is 65 °C
(k) pH	Not available; BP ca. 7
(l) Kinematic viscosity	Not available
(m) Solubility	Water: insoluble; BP 0.35 mg/L
(n) Partition coeff. n-octanol/water (log value)	Not available; BP: 3.2
(o) Vapour pressure	Not available; BP: 0.009 Pa at 25 °C (calculated)
(p) Density or rel. density	Not available
(q) Relative vapour density	Not available
(r) Particle characteristics	Not available
9.2 Other information	BP is an organic peroxide and is considered a powerful oxidizer and a strong supporter of combustion. It is classified as explosive in the CLP Regulation and the in the transport of dangerous goods.

SECTION 10: Stability and reactivity

10.1 Reactivity	Not available.
10.2 Chemical stability	Stable under recommended storage and handling conditions. No hazardous polymerization.
10.3 Possibility of hazardous reactions	BP: decomposition starts at 105 °C; dangerous decomposition with risk of explosion.
10.4 Conditions to avoid	Temperatures above 30 °C . Keep away from sunlight, heat and sources of ignition (risk of exothermic decomposition). Protect from frost. BP: Risk of explosion by shock, friction, fire or other sources of ignition.
10.5 Incompatible materials	Product is a strong oxidizing agent. Keep away from combustible materials. Keep separate from acids, bases, reducing agents, metal compounds, and dusts (risk of self-accelerating exothermic decomposition).
10.6 Hazardous decomposition products	BP: thermal decomposition lead to formation of very reactive free radicals, and hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity	Based on available data, the classification criteria are not met. BP: LD ₅₀ (oral, mouse) > 2000, (oral, rat) 5000 mg/kg. No deaths occurred (inhalation, rat) at 24.3 mg/L.
(b) Skin corrosion/irritation	Based on available data, the classification criteria are not met. BP: slightly irritating to skin

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(c) Serious eye damage/irritation	Based on available data, the classification criteria are not met. Not irritating to the eye (rabbit test) if washed out within 5 min. Slightly irritating at a 78% concentration if not washed out until 24 h. Classified as eye irritant in Annex VI to the CLP Regulation.
(d) Respiratory or skin sensitisation	Respiratory sensitisation: no relevant ingredient has been classified for this effect. Dermal sensitisation: based on available data, the classification criteria are met for Skin Sensitisation Category 1 (may cause an allergic skin reaction). BP: several skin sensitization tests in animals show positive results. In a local lymph node assay (LLNA; method OECD 429; mouse), BP elicited a strong response in all cases, even at the lowest concentration tested (0.5 wt%). Results in a human maximisation test showed many cases of skin sensitisation.
(e) Germ cell mutagenicity	Based on available data, the classification criteria are not met. BP: not classified for this effect.
(f) Carcinogenicity	Based on available data, the classification criteria are not met. BP: not classified for this effect.
(g) Reproductive toxicity	Based on available data, the classification criteria are not met. BP: not classified for this effect.
(h) STOT-single exposure	Based on available data, the classification criteria are not met. BP: not classified for this effect.
(i) STOT-repeated exposure	Based on available data, the classification criteria are not met. BP: not classified for this effect.
(j) Aspiration hazard	Based on available data, the classification criteria are not met. BP: not classified for this effect.
11.2 Information on other hazards	Not available.

SECTION 12: Ecological information

12.1 Toxicity	Based on available data on the ingredients, the classification criteria are met for Aquatic Chronic 1 (very toxic to aquatic life with long lasting effects). BP: LC ₅₀ (fish, 96 h) 0.06 mg/L; EC ₅₀ (Daphnia magna, 48 h) 0.11 mg/L; E _r C ₅₀ (algae, 72 h) 0.07 mg/L, NOEC, 0.02 mg/L.
12.2 Persistence and degradability	BP: 68% in 28 d (readily biodegradable). BP: rapid hydrolyses. At pH 4, 7 and 9 and 50 °C, more than 50% hydrolysis had occurred after 2.4 h, equivalent to a half-life of less than 1 d under environmental conditions at 25 °C). Benzoic acid is present in the hydrolysed solutions.
12.3 Bioaccumulative potential	BP: not considered bioaccumulative based on log K _{ow} .
12.4 Mobility in soil	BP: not considered to be mobile in soil and sediments.

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12.5 Results of PBT and vPvB assessment	BP: not identified as PBT or vPvB.
12.6 Endocrine disrupting properties	BP: not identified as an endocrine disruptor.
12.7 Other adverse effects	The mixture is not classified as hazardous to the ozone layer.

SECTION 13: Disposal considerations

13.1 Waste treatment methods	<p>Incineration or landfill is recommended for this product. Disposal via the drains is not recommended.</p> <p>Destroy product by incineration after dilution in a suitable flammable solvent. Amount of active oxygen must be below 1%. Destroy packaging by incineration at an approved waste disposal site.</p> <p>Dispose of contents/container to incineration in accordance with local/national regulation.</p> <p>Chemical residues generally count as special waste. General EU requirements are given in Directive 2008/98/EC and GB equivalent.</p>
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SECTION 14: Transport information

14.1 UN Number	3104
14.2 UN proper shipping name	ORGANIC PEROXIDE TYPE C, SOLID (contains benzoyl peroxide).
14.3 Transport hazard class(es)	5.2.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	Classified as marine pollutant/environmentally hazardous.
14.6 Special precautions for user	Not available.
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	<p><i>UK:</i> Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended.</p> <p>COSHH Essentials: Easy Steps to Control Chemicals; HSE Books 2003 (also available on the HSE web site).</p> <p>Workplace Exposure Limits EH40/2005 (Second edition, published 2011), Health and Safety Executive.</p>
15.2 Chemical safety assessment	Not available.

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SECTION 16: Other information

Revisions	This SDS is the first version in EU format (Regulation 2020/878), using classification according to the CLP Regulation, or GB equivalent.
Abbreviations	DMEL, derived minimum effect level; DNEL, derived no-effect level; EC, effect concentration; LC, lethal concentration; PBT, persistent, bioaccumulative, and toxic; PNEC, predicted no-effect concentration; STOT RE, specific target organ toxicity, repeated exposure; STOT SE, specific target organ toxicity, single exposure; TWA, time-weighted average; vPvB, very persistent, very bioaccumulative; WEL, UK workplace exposure limit.
References	Search for chemicals; available at the European Chemicals Agency (ECHA) website: http://echa.europa.eu/ .
Basis of classification	The classification of the mixture has been assessed according to the criteria given in Regulation 1272/2008 or GB equivalent on the basis of available information on the ingredients.
List of hazard statements	H242: Heating may cause a fire; H315: Causes skin irritation; H317: May cause an allergic skin reaction; H319: Causes serious eye irritation; H400: Very toxic to aquatic life; H410: Very toxic to aquatic life with long lasting effects.